

**REMARKS**

In response to the final Office Action ("Office Action") mailed on May 25, 2005, Applicant respectfully requests reconsideration of all rejections in view of the present Request for Continued Examination and the following remarks. Claims 1, 13, and 19 have been amended. Claims 1-11 and 13-28 are currently pending.

**I. The Grounds For Rejection Are Unclear**

Different embodiments in the same reference may not be combined piecemeal to form a rejection under 35 U.S.C. § 102. However, in the present Office Action, the Examiner repeatedly cited portions of certain references that disclose multiple embodiments in an effort to reject certain claims. Regarding claim 1, for example, the Examiner cites Pitchenik, col. 2, l. 40 - col. 3, l. 28 and col. 4, ll. 32-67. These passages refer to no less than seven (7) different embodiments:

The present invention provides a method for verifying that a host system is the expected host system once the PSD has been verified as the expected PSD. ...

The present invention further provides alternate embodiments secure and reliable methods for verifying in the host system that the expected PSD is coupled to the host system. In one embodiment, a message, such as a random number, is generated in the Host system and sent to the PSD. In one embodiment, the PSD encrypts the number and transmits it to the Host system. ... In an alternate embodiment, the random number is signed in the PSD. ...

In yet another embodiment, the PSD has a private key which is associated with a specific public key that is stored in the host PC. ...

In another embodiment, a random number is generated in the host system and encrypted with a PSD state identification number. ...

Pitchenik, col. 2, l. 40 - col. 3, l. 28 (emphasis added). In order to support a rejection under 35 U.S.C. § 102, every element of the claimed invention must be literally present, arranged as in the claim. *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 894, 221 USPQ at 673 (Fed.



Cir. 1984); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771-72, 218 USPQ 781, 789 (Fed. Cir. 1983). Multiple embodiments do not support a rejection under § 102, which requires that the identical invention be shown in as complete detail as is contained in the patent claim. *See Jamesbury Corp. v. Litton Industrial Products, Inc.*, 756 F.2d 1556, 1560, 225 USPQ 253, 255 (Fed. Cir. 1985).

Applicant reiterates the request that the Examiner specify exactly which single embodiment of the cited reference is relied upon in forming any rejection under § 102. Applicant first made this request in response to the Office Action of November 24, 2004. However, the rejections in the present Office Action are identical to those of the Office Action of November 24, 2004. Failure to clarify the scope of the rejection adversely prejudices Applicant because the Examiner's grounds for rejection are unclear and therefore not amenable to rebuttal.

## **II. The Cited References Fail to Disclose a "Second Random Number"**

Claims 1 and 19, as amended, both recite "generating a second random number, wherein the second random number is different from the first random number." Claim 13, as amended, recites, "a random number generator configured to generate at least one random number different from a received random number." Applicant believes that these amendments do not alter the scope of the claims. Nevertheless, Applicant presents these amendments in order to move forward with prosecution of the present application. The cited references, Pitchenik *et al.* ("Pitchenik"), Kimura, and Shteyn, fail to disclose these limitations.

Pitchenik does not consider, discuss, suggest, or in any way refer to a second random number. The various embodiments disclosed by Pitchenik include at most a single random number. The claimed limitations of "generating a second random number, wherein the second random number is different from the first random number" (claims 1 and 19) or "generat[ing] at least one random number different from a received random number" (claim 13) are simply absent from the Pitchenik disclosure.

Furthermore, none of the Pitchenik embodiments send a second challenge including a second random number to a computing device. The claim limitations of "transmitting a second challenge to said computing device, wherein said second challenge comprises said encrypted second random number" (claim 1) and "transmitting a second challenge to said computing



device, wherein said second challenge comprises ... said second random number” (claim 19) are entirely absent from the Pitchenik disclosure. Pitchenik therefore cannot properly be relied upon to reject these claims. Because Pitchenik fails to disclose a “second random number” included in a “second challenge,” the rejection is improper and should be withdrawn.

Kimura does not make up for Pitchenik’s omission. In particular, Kimura fails to disclose a second random number and fails to disclose “transmitting a second challenge to said computing device, wherein said second challenge comprises said encrypted second random number” and “transmitting a second challenge to said computing device, wherein said second challenge comprises ... said second random number.” At most, Kimura discloses a single random number. Nowhere does Kimura consider, discuss, suggest, or in any way refer to a second random number. It is therefore improper to rely on Kimura, and Applicant accordingly requests that the rejection be withdrawn.

Shteyn also fails to disclose “generating a second random number.” To the contrary, Shteyn is directed to traditional WEP authentication, which lacks a second random number as claimed. *See* Shteyn, paragraphs 19-20. The present application is directed to overcoming certain disadvantages of WEP. *See* the present application, paragraphs 6-9. Moreover, Shteyn makes absolutely no mention of a “second random number.” Due to the complete absence of any teaching, suggestion, consideration, discussion, or reference to a “second random number,” in Shteyn, any reliance on the same would be improper. Applicant accordingly requests that the rejection be withdrawn.

Under 35 U.S.C. § 102, anticipation requires that a prior art reference disclose each and every element of the claimed invention. *In re* Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). MPEP § 2131 reinforces this principle: “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because the cited references fail to disclose a “second random number” as claimed, the rejection is improper and must be withdrawn.

The claims dependent on claim 1, 13, and 19 are allowable at least by virtue of their dependency on claims 1, 13, and 19. Applicant accordingly requests that the rejection of the claims dependent on claims 1, 13, and 19 be withdrawn.



### **III. The Cited Reference Fails to Disclose a “Physical Token”**

Claim 13 as amended recites a “removable unique tamper-resistant physical token comprising a random number generator, a unique secret cryptographic key, and a unique serial number.” The cited references, Pitchenik, Kimura, and Shteyn have absolutely no teaching of this limitation.

#### **A. Pitchenik Fails To Disclose A “Physical Token”**

Pitchenik has absolutely no teaching, suggestion, consideration, discussion, or reference concerning a “physical token.” The present specification discusses the qualities of a physical token: “[t]he present invention [uses] ... physical keys in the form of easy-to-use adapters that attach to existing computing devices and wireless access points... These physical keys are secure, tamper-resistant physical tokens.” Present application, paragraph 36. Pitchenik lacks any discussion of such physical tokens.

As best understood by Applicant, the Examiner’s position appears to be that the “physical token comprising a random number generator, a unique secret cryptographic key, and a unique serial number” is included somewhere in Pitchnik’s postage security device (PSD). The Examiner stakes out this position as follows:

[A]pplicant argues that Pitchenik reference does not disclose a tamper resistant physical token. However, Pitchenik discloses that the cryptographic key and unique ID are stored within the postage security device, which is a tamper resistant device. Therefore, the tamper-resistant physical token is included in the postage security device ready for authentication.

Office Action, page 10. This position is untenable. Surely the examiner does not argue that any key together with an ID constitute a “physical token,” no matter where or how these items are stored. The mere fact that Pitchenik stores a key and an ID somewhere in a PSD does not mean that the storage location is a “physical token.” Pichenik could, for example, store a key and an ID on a permanent hard drive inside the PSD. Such a permanent hard drive is not a “removable physical token.”



In short, the mere fact that Pitchenick discloses that a key and ID are located somewhere inside a PSD box does not anticipate “at least one authentication device, wherein each authentication device includes a removable unique tamper-resistant physical token comprising a random number generator configured to generate at least one random number different from a received random number.”

**B. Pitchenick Fails To Disclose A “Removable” Physical Token**

Claim 13, as amended, states that the “physical token” is “removable.” Pitchenick has absolutely no teaching of a “removable” physical token. In fact, Pitchenick has no teaching of any separate device comprising “a random number generator, a unique secret cryptographic key, and a unique serial number,” as claimed. Pitchenick is absolutely silent with respect to this claim limitation. In the complete absence of any disclosure whatsoever of a “removable unique tamper-resistant physical token,” reliance on Pitchenick is misplaced. Applicant respectfully requests that the rejection be withdrawn.

**C. Pitchenick Fails To Disclose A “Tamper-Resistant” Physical Token**

Pitchenick has absolutely no teaching, suggestion, consideration, discussion, or reference concerning anything that is “tamper-resistant.” At most, Pitchenick discloses in a completely generic manner that the entire system is “secure.” *See* Pitchenick, column 1, lines 51-53. Applicants strongly dispute that a generic disclosure of an entire system being “secure” amounts to a disclosure of a “physical token” being “tamper-resistant.” “Secure” does not imply “tamper-resistant.” For example, encrypted data stored on magnetic media might be considered “secure,” but are certainly not “tamper-resistant” because such data could easily be altered. In short, “secure” does not mean or imply “tamper-resistant.”

Furthermore, Pitchenick does not disclose that any removable physical token is tamper-resistant. Rather, the entire system of Pitchenick is referred to as being “secure,” although exactly how the system is “secure” is not specified. *See* Pitchenick, column 2, lines 34-39. The disclosure of Pitchenick cannot, therefore, be properly relied upon to reject claim 13, which specifies that the physical token is “tamper-resistant.” Because Pitchenick lacks any teaching



regarding a “unique tamper-resistant physical token,” the rejection is improper and should be withdrawn.

**D. Neither Kimura Nor Shteyn Disclose Any Type Of “Physical Token”**

Kimura fails to disclose a “removable unique tamper-resistant physical token.” Kimura is utterly silent with respect to this limitation. In no way does Kimura consider, discuss, suggest, or refer to a “unique tamper-resistant physical token.” In the complete absence of any teaching of “unique tamper-resistant physical token” by Kimura, any reliance on the same to reject the pending claims would be improper. Applicant respectfully requests that the rejection be withdrawn.

Shteyn, too, fails to disclose “removable unique tamper-resistant physical token comprising a random number generator, a unique secret cryptographic key, and a unique serial number.” The Examiner states that the “Shteyn reference discloses using a dongle for authentication purposes.” Office Action, page 10. Shteyn’s dongle is not “tamper-resistant.” Shteyn’s dongle does not contain a “random number generator.” Shteyn’s dongle does not contain “a unique secret cryptographic key.” And Shteyn’s dongle does not include “a unique serial number.” *See* Shteyn, paragraph 27. A generic reference to “using a dongle for authentication purposes” does not amount to a teaching of a “removable unique tamper-resistant physical token comprising a random number generator, a unique secret cryptographic key, and a unique serial number.” In the complete absence of such teaching, any reliance on Shteyn would be misplaced. Applicant accordingly requests that the rejection be withdrawn.

As the Examiner is well aware, anticipation under 35 U.S.C. § 102 requires that a prior art reference disclose each and every element of the claimed invention. *In re Sun*, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). MPEP § 2131 reinforces this principle: “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because the cited references fail to disclose a “unique tamper-resistant physical token comprising a random number generator, a unique secret cryptographic key, and a unique serial number” as claimed, the rejection is improper and must be withdrawn.



The claims dependent on claim 13 are allowable at least by virtue of their dependency on claim 13. Applicant accordingly requests that the rejection of the claims dependent on claim 13 be withdrawn.

**VII. Conclusion**

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below-listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

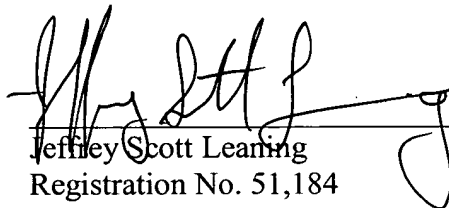
No fee is believed to be required for entry and consideration of this timely Reply. Nevertheless, in the event that the U.S. Patent and Trademark Office requires a fee to enter this Reply or to maintain the present application pending, please charge such fee to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

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Dated: August 23, 2005

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